As the result of my own personal investigations I certainly concur with Mr. Watson Cheyne, who says: "I may add my firm conviction that the patient's chance lies in the first operation. If this fails, either from imperfect removal of the disease, or on account of the extent of the disease in the first instance, further operation, however extensive, is seldom successful."

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THE PROBABLE PARENTAL FORM OF THE SHARP-TAILED FILARIA FOUND IN THE BLOOD OF THE ABORIGINALS OF BRITISH GUIANA.

[WITH SPECIAL PLATE OF PHOTOMICROGRAPHS.]

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It is now known that two forms of filarial embryos—a blunt-tailed and a sharp-tailed—occur in the blood of a large proportion of the aboriginals of British Guiana. In the *BRITISH MEDICAL JOURNAL* of April 16th, 1898, I described some adult filariæ found in two of these aboriginals, and showed that they were the parental forms of one of the blood worms referred to (described and provisionally named "*Filaria Ozzardi*")¹ by Dr. Manson in the *BRITISH MEDICAL JOURNAL* of December 25th, 1897)—namely, the blunt-tailed.

In the course of a *post-mortem* examination of a third aboriginal in whose blood both the blunt and sharp-tailed filariæ had been found (and no others in repeated examinations—two of them at night), I found a few adult filariæ of the species previously described, and, in addition, a female and the portion of a male new to me, and probably the parental form of the sharp-tailed embryos.

These two worms lay close together, and were found on stripping the peritoneum from the anterior abdominal wall. They were partly detached in the process, and consequently must have been lying in the subperitoneal connective tissue. They were arranged in loose coils, and did not appear to be either encysted or contained in any vessel. They were dead. The general structure—an unarmed head, complete alimentary canal, double ovarian tube opening into a single rather complicated vagina, smooth surface—was similar to that of the other filaria alluded to, and closely resembled *Filaria Bancrofti*.

The subjoined table gives my measurements of this and the other known adult hæmatozoal filariæ of approximately similar dimensions; that found by Magalhães at Rio de Janeiro is so much larger that it may be excluded from the comparison.

	<i>Filaria Bancrofti</i> .	<i>Filaria No. 1. (Filaria perstans.)</i>	<i>Filaria No. 2. (Filaria Ozzardi.)</i>
	Mm.	Mm.	Mm.
Length ...	85 to 90	70 to 80	81
Greatest thickness ...	0.20 to 0.26	0.120	0.210
Diameter of head ...	0.055	0.070	0.050
Diameter of neck ...	0.049	0.054	0.039
Distance from head—			
(1) Of vaginal outlet ...	0.710	0.600	0.710
(2) Of ovarian opening...	0.920	?	0.850
Distance from tail of anal papilla...	0.225	0.145	0.230
Termination of tail ...	Blunt, circular, not bulbous.	Slightly bulbous; covered by thickened cuticle prolonged into two triangular appendages.	Bulbous, cuticle not thickened.

From this table it will be seen at once that the new filaria is sharply differentiated from the other aboriginal filaria by its smaller head, larger body, and the absence of caudal cuticular appendages. On the other hand, its resemblances to *Filaria Bancrofti* are very marked. The vaginal outlet is as strongly marked as in that worm, and consists of a straight tubal terminal portion continuous with an irregular convoluted portion into which the two ovarian tubes open together. I do not find any widely-dilated portion such as I believe exists in *Filaria Bancrofti*.

Natural size.

The shape of the body differs in these two worms. In *Filaria Bancrofti* the thickness for the greater part of the worm is fairly uniform, but it tapers slightly towards the head for a short distance from the vulva, and then more abruptly to the neck. In the new filaria the greatest thickness is about the junction of the anterior third with the rest of the body; from this point it tapers gradually towards the head, tapering more rapidly for a considerable distance from the vaginal outlet to the neck, without any abrupt change. The termination of the tail also differs in being distinctly bulbous, measuring 0.038 mm. at a distance of 0.017 mm. from the tip, and 0.034 at 0.04 mm. from the tip of the tail.

The portion of the male found was about 38 mm. in length. In thickness it was nearly 0.2 mm.; in marked contrast with the 0.11 mm. of the male *Filaria Bancrofti*, or the 0.06 of the male of the other aboriginal filaria. The tail was tightly coiled. There were no protruded spicules; but without running the risk of damaging the specimen a thorough examination of this feature was impossible. The tip of the tail protruded from the coil. It slowly tapered to a point 0.27 mm. from the tip, where it abruptly tapers. This point probably marks the point of emergence of the spicules. The gradual taper ending in a faintly bulbous tip in this worm, is very different from the termination of the tail in *Filaria Bancrofti*.

It is obvious that the powerful body and small head of this worm are better suited for extensive wanderings than the larger head and weaker body of the aboriginal filaria previously found. If its habitat is the connective tissue, as seems probable, it will be very difficult to find; in two previous examinations in which the sharp-tailed embryos had been found I failed to find the corresponding adult worms. Under the circumstances I leave the details of structure, and particularly the character of the embryos in the ovarian tubes, for further examination, as they could not be determined without risk of damaging or altering the specimens.

The differences observed both in the male and female are sufficient, I consider, to differentiate this from the other described adult filariæ. The name "*Filaria Ozzardi*" might be retained for the new species.

¹ [We are informed that Dr. Manson has recently found these adult filariæ to be identical with the parental form of the African *Filaria perstans*. The blunt-tailed form of the so-called *Filaria Ozzardi* is therefore *Filaria perstans*. The microphotographs have been made by Mr. Francis Fowke from specimens sent home by Dr. Daniels.]

MR. HENRY ALLEN, of Ecclesall, who died on February 23rd last, has bequeathed £250 each to the Sheffield Infirmary, Sheffield Royal Hospital, Sheffield Children's Hospital, and the Jessop Hospital.

THE ANTIRABIC INSTITUTE OF TURIN.—The official report of this institution states that the number of persons who applied for treatment during the year 1898 was 441. Of these 231 underwent a course of treatment by Pasteur's method; in the remaining 210 cases it was positively ascertained that the animal which inflicted the bite was not rabid. The mortality was nil. The total number of persons who have applied for treatment since the opening of the institute on September 30th, 1886, is 5,169; of these 3,627 were actually treated. The total death-rate from 1886 to 1898 (inclusive) is given as 3.68 per cent.

FILARIA BANCROFTI v. NOCTURNA.

FILARIA PERSTANS.

FIG. 1.—2 Males and 1 Female.

FILARIA OZZARDI.

FIG. 2.—Male, Caudal half.

FIG. 3.—Female entire.

FIG. 4.—Head, Male.

FIG. 6.—Head, Female.

FIG. 5.—Head, Male.

FIG. 7.—Tail, Male.

FIG. 8.—Tail, Male.

FIG. 9.—Tail, Female.

Photo., Francis Fowke, F.R.M.S.]

[Collotyped, Eyre & Spottiswoode.

TO ILLUSTRATE PAPER ON FILARIA BY C. W. DANIELS, M.B.

FIGS. 1, 2, 3 x 6

FIGS. 4, 5, 6, 7, 8, 9 x 100